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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,427	09/26/2003	K. Peter Lo	034726/265028	8453

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PHILLIPS LYTTLE LLP  
INTELLECTUAL PROPERTY GROUP  
3400 HSBC CENTER  
BUFFALO, NY 14203-3509

EXAMINER

PEACE, RHONDA S

ART UNIT PAPER NUMBER

2874

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,427	<b>Applicant(s)</b> LO ET AL.	
	<b>Examiner</b> Rhonda S. Peace	<b>Art Unit</b> 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to <sup>application</sup> ~~communication(s)~~ filed on 26 September 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-46 is/are allowed.
- 6) ☒ Claim(s) 47-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 9/26/03 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner, as indicated on the attached and initialed IDS originally submitted by the applicant.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 47, and 49-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Eijkelenboom et al (US 4039878).

As to claim 47, Eijkelenboom et al (US 4039878) discloses an electric reflector lamp comprising an elliptical reflector for use with a hyperbolic reflector, where the foci of the elliptical reflector and the hyperbolic reflector coincide. It is inherent that both reflectors, the elliptical and hyperbolic, will have two focal points, as this is a property of all reflectors with hyperbolic or elliptical geometry.

As to claims 49 and 50, Eijkelenboom et al (US 4039878) teaches that the above mentioned elliptical and hyperbolic reflectors consist of a transparent body (of which the plastic spoken of in claim 49 would certainly qualify) coated with a reflecting layer (column 3 lines 1-4 and 12-14). As well, Eijkelenboom et al

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(US 4039878) illustrates that the elliptical and hyperbolic reflectors previously mentioned are integral, as shown by Figure 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eijkelenboom et al (US 4039878).

Speaking to claim 48, at the point where the above-mentioned foci coincide, a light source, comprising a filament, is placed so that the light source surrounds the coinciding foci. Therefore the filament is placed at the focal point of both the hyperbolic reflector and the elliptical reflector (column 1 lines 1-14). Normally, the filament by itself cannot serve as a focusing element; however, this filament is analogous to the "focusing element" mentioned in claim 48, since it would be obvious to include a glass bulb that surrounds the filament. In this case, it is the glass bulb that can act as the "focusing element" of claim 48. Addition of a glass bulb to surround a filament is common practice in the art, as it lends additional strength and stability to the light source, in addition to extending the life of the filament itself.

***Allowable Subject Matter***

Claims 1-46 are allowed over the applicable prior art. The prior art does not disclose, nor reasonably suggest a fiber optic rotary joint comprising an elliptical reflector, a hyperbolic reflector, or a combination of the two reflectors, where they are arranged such that the focal points of the two reflectors are coincident. Furthermore, the prior art does not disclose the use of a slip ring, optical source, coupler, detector, or splitter with the device as described above. Therefore, it is the examiner's opinion that claims 1-46 have exhibited novelty over the prior art, and are thereby allowable.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-4).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344.

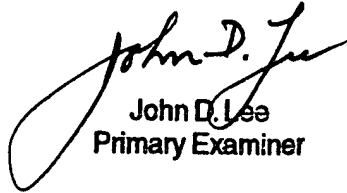
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Rhonda S. Peace  
Examiner  
Art Unit 2874



John D. Lee  
Primary Examiner